BY ORDER OF THE SECRETARY OF THE AIR FORCE

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Flying Operations

T-41, T-51, T-52, AND T-53 EVALUATION CRITERIA

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This instruction implements AFPD 11-2, *Aircraft Rules and Procedures*, and AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*. It establishes procedures and criteria for evaluation of all aircrew personnel performing duties in the T-41, T-51, T-52, and T-53 aircraft. This instruction applies to the Air National Guard (ANG). With the exception of the associate instructor pilot program, it does not apply to the Air Force Reserve Command. Requests for waivers must be submitted through the chain of command to the appropriate Tier waiver approval authority, and filed in accordance with AFI 33-360. According to AFI 11-200, major commands (MAJCOM) will coordinate MAJCOM-level supplements through AETC/A3V and AF/A3O prior to publication. (T-1). Field units below MAJCOM level will coordinate their supplements through their parent MAJCOM OPR prior to publication. (T-1). Submit suggested improvements to this instruction on AF Form 847, *Recommendation for Change of Publication*, through standardization and evaluation (stan/eval) channels to the OPR. AF/A3O is approval authority for changes or revisions to this instruction. The Privacy Act of 1974 applies to certain information gathered pursuant to this instruction. Privacy Act System of Records F011 AF XO A, Aviation Resource Management System (ARMS), **http://www.defenselink.mil/privacy/notices/usaf/F011AFXOA.shtml**, applies. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). (T-1). Systems of records notice F036

AETC T Flying Training Records – Nonstudent applies. Attachment 1 contains a glossary of the references and supporting information used in this publication.

SUMMARY OF CHANGES

This revision implements Tier waiver authorities IAW AFI 33-360 and contains administrative updates for the OPR change and references.

Chapter 1

GENERAL

1.1. Conducting Evaluations. All evaluations are conducted in accordance with the provisions of AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*, and this instruction. (T-2).

1.2. Procedures:

1.2.1. Flight examiners (FE) will use the evaluation criteria contained in this instruction for conducting flight and emergency procedure evaluations (EPE). (T-2). To ensure standard and objective evaluations, FEs must become thoroughly familiar with the prescribed evaluation criteria.

1.2.2. Unless specified, the examinee will fly in the seat that best enables the FE to conduct a thorough evaluation. The FE normally occupies the left seat during instructor evaluations and the right seat for all other types of evaluations.

1.2.3. Prior to the flight, the FE will brief the examinee on the purpose of the evaluation and how it will be conducted. (T-2). The examinee accomplishes required flight planning during the evaluation and furnishes the FE a copy of necessary mission data, mission materials, and maps (as required).

1.2.4. The FE will thoroughly debrief all aspects of the flight. Debriefs include the examinee's overall rating, specific deviations, area grades assigned (if other than qualified), and any required additional training. (T-2). A squadron supervisor must be debriefed on all evaluations. (T-2). Additionally, a squadron supervisor must attend the debrief if the overall grade is Qualification Level 3 (Q-3). (T-2).

1.2.5. To initially qualify as an instructor, a pilot must successfully complete a dedicated initial instructor evaluation. (T-2). Subsequently, crewmembers designated as instructors will be evaluated on their ability to instruct during all periodic evaluations. (T-2). FEs will act as a student for the purpose of evaluating the examinee's instructional ability.

1.3. Grading Instructions:

1.3.1. Tolerances in performance parameters are based on conditions of smooth air and a stable aircraft. Momentary deviations from tolerances will not be considered in grading, provided the examinee applies prompt corrective action and such deviations do not jeopardize flying safety. Consider cumulative deviations when determining the overall grade.

1.3.2. FEs will use the grading criteria in paragraph 1.3.5 and Table 3.1 to determine individual area grades. (T-2). When individual areas are performed well above the grading criteria standards, then make an appropriate comment stating performance and/or instruction was commendable in the Examiner's Remarks in the Comments block of the AF Form 8, *Certificate of Aircrew Qualification,* or AF Form 8a, *Certificate of Aircrew Qualification (Multiple Aircraft).* (T-2). FE judgment must be exercised when the evaluation criterion is subjective or the specific situation is not covered.

1.3.3. Derive the overall flight evaluation grade (Q-1, Q-2, or Q-3) from the area grades, based on a composite for the observed events and tasks, according to AFI 11-202, Volume 2, *Aircrew Standardization and Evaluation Program,* this instruction and FE judgment. (T-2).

1.3.4. Critical areas require adequate accomplishment by the examinee to successfully achieve mission objectives. If the examinee receives an unqualified grade in any critical area, the overall grade for the evaluation will be unqualified (Q-3). (T-2). Critical areas are identified by "Critical" in the area title in Chapter 3. Grade critical areas as "Q" or "U."

1.3.5. The general evaluation criteria in **Table 1.1** apply during all phases of flight (except for specific events noted in **Table 3.1**).

Table 1.1. General Evaluation Criteria.

ITEM	**A** **General Area**	**B** **Q**	**C** **Q-**	**D** **U**
1	Altitude	±100 feet	±200 feet	Exceeds Q- limits
2	Airspeed	±5 knots	±10 knots	
3	Heading	Maintains/rolls out ±5 ° of desired heading	Maintains/rolls out ±10 ° of desired heading	

1.4. Emergency Procedures Evaluation (EPE). FEs will administer oral EPEs on the ground. Include a sampling of emergency procedures resolved to a logical conclusion. (T-2).

1.4.1. The FE will include an evaluation of the following items on the EPE (T-2):

1.4.1.1. General knowledge, including aircraft systems, operating procedures, and the National Airspace System (NAS).

1.4.1.2. Emergency procedures (evaluate at least one).

1.4.1.3. Alternate or divert airfields.

1.4.2. Units will not permit examinees receiving an overall unqualified grade (Q-3) because of an unsatisfactory EPE to fly in any aircrew position until the examinee completes a successful reevaluation. (T-2).

1.4.3. For each EPE graded ―qualified with additional training required,‖ the FE will indicate whether the additional training must be accomplished before the next flight. (T-2).

1.5. Completion of AF Form 8 or AF Form 8A. Record aircrew member qualifications on the AF Form 8 or AF Form 8A, in accordance with AFI 11-202, Volume 2. (**Exception:** Record nonrated pilot qualifications on a temporary certificate of evaluation kept in the pilot's training folder.) (T-2).

1.5.1. When an evaluation in one aircraft satisfies the evaluations requirements in another aircraft, include a comment stating so in the examiner's remarks on an AF Form 8 or AF Form 8A.

1.5.2. With the exception of restrictions and exceptionally qualified designation (if used), place all comments on the reverse side of the AF Form 8 or AF Form 8A.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General. There are five types of evaluations: qualification (QUAL), mission (MSN), instructor (INSTR), instrument (INSTM) (ANG only), and SPOT. Evaluations include requisites and required areas. Table 2.1 indicates when a requisite is required (R) for an evaluation. (T-2). Table 2.2 prescribes required areas that must be included in the flight evaluation profile. Evaluation areas are aligned under the type of evaluation.

2.1.1. **Alternative Evaluation Methods.** Alternate evaluation methods are not authorized. If the FE determines one or more of the required items cannot be adequately evaluated, the examinee must complete an additional flight to complete the evaluation. (T-2).

2.1.2. **Publications Check.** The FE will check these publications during the evaluation (T-2):

2.1.2.1. For T-41 evaluations: TO 1T-41D-1CL-1, *Pilot's Abbreviated Flight Crew Checklist, USAF Series T-41D Aircraft*; and the local in-flight guide (IFG).

2.1.2.2. For T-51 evaluations: TO 1T-51A-1CL-1, *Pilots' Abbreviated Flight Manual Checklist, USAF, T-51A Series Aircraft*, and the local IFG.

2.1.2.3. For T-52 evaluations: TO 1T-52A-1CL-1, *Pilot's Abbreviated Flight Crew Checklist, USAF Series T-52A Aircraft*, and the local IFG.

2.1.2.4. For T-53 evaluations: TO 1T-53A-1CL-1, *Pilot's Abbreviated Flight Crew Checklist, USAF Series T-53 Aircraft*, and the local IFG.

2.1.2.5. For pilots qualified in multiple aircraft, check each set of publications.

2.2. Requisites. Table 2.1 indicates the minimum requisites for each type of evaluation. When periodic evaluations are combined, accomplish all requisites for each evaluation and document in the ground phase section of AF Form 8 or AF Form 8A. (T-2). For each required exam, units may combine questions covering multiple aircraft into a single test.

Table 2.1. Evaluation Requisites.

ITEM	A Requisite	B QUAL	C MSN/INSTR	D *INSTM	E SPOT
1	Open book exam	R			
2	Closed book	R			
3	Boldface exam	R	R		
4	EPE	R	R		
*5	Instrument exam			R	

2.3. Pilot Evaluations. All pilot evaluations are qualification evaluations. The examinee briefs the sortie profile and flies from the left seat. Include all required (R) areas from Table 2.2 in the flight evaluation profile. (T-2). Fly a normal departure followed by maneuvers (areas 22–24 and 26–27) in the local training area. The examinee will perform each type of landing. A QUAL

evaluation in the DA20, T-41, T-51, T-52, or T-53 satisfies the periodic QUAL evaluation requirements for the other aircraft so that only one periodic QUAL evaluation is required.

2.4. Instructor Pilot Evaluations. Following the initial MSN/INSTR evaluation, all periodic instructor pilot (IP) evaluations are combined MSN, QUAL, and INSTR evaluations to evaluate both proficiency and instructor ability. The examinee briefs the sortie profile and flies from the right seat. Include all required areas from **Table 2.2** in the flight evaluation profile. (T-2). Accomplish a normal departure followed by area maneuvers in the local training area. The examinee will perform each type of landing. The examiner will attempt at least two area maneuvers and one landing for the examinee to instruct and evaluate. A MSN evaluation in the T-41, T-51, T-52, or T-53 satisfies the periodic MSN evaluation requirements for the other aircraft so that only one periodic MSN evaluation is required.

Table 2.2. T-41, T-51, T-52, and T-53 Evaluation Requirements.

A	A	B	C
REA	Title	QUAL	MSN/INSTR
1	Mission Planning	R	R
2	Mission Briefing	R	R
3	Ground Operations	R	R
4	Takeoff	R	R
5	Departure	R	R
6	Climb	R	R
7	Clearing	R	R
8	Level Off	R	R
9	Cruise/Navigation	R	R
10	In-Flight Checks	R	R
11	In-Flight Planning/Area Orientation	R	R
12	Communication/IFF Procedures	R	R
13	Crew Coordination	R	R
14	Risk Management/Decision-making	R	R
15	Task Management	R	R
16	Debriefing	R	R
17	Airmanship (**Critical**)	R	R
18	Safety (**Critical**)	R	R
19	Aircrew Discipline (**Critical**)	R	R
20	Situational Awareness	R	R
21	Steep Turns	R	R
22	Power-Off Stall Series (Note 1)	R	R
23	Power-On Stall Series (Note 2)	R	R
24	Slow Flight	R	R
25	Simulated Forced Landing	R	R
26	Aerobatics (Chandelle/Lazy Eight)	R	R
27	Unusual Attitudes	R	R

A R E A	A Title	B QUAL	C MSN/INSTR
28	Arrival	R	R
29	Enroute Descent	R	R
30	Traffic Entry	R	R
31	Patterns	R	R
32	Normal Landing(Note 3)	R	R
33	Full Flap Landing (Note 4)	R	R
34	No-Flap Landing (Note 5)	R	R
35	Touch-and-Go Procedures	R	R
36	Go-Around	R	R
37	Breakout and Reentry		
38	Transfer of Aircraft Control	R	R
39	Throttle/Mixture/Propeller Procedures	R	R
40	Emergency Procedures	R	R
41	General Knowledge	R	R
42	Publications	R	R
43	Instructor Knowledge		R
44	Ability to Instruct		R
45	Grading Practices		R
46	Flight Test Techniques		
47	NIFA Maneuvers		
***48**	Instrument Approaches (Note 6)	R	R

Notes:
1. Accomplish at least two of the three power-off stalls listed in Table 3.1.
2. Accomplish at least two of the three power-on stalls listed in Table 3.1.
3. Accomplish landings at 20 degrees of flaps (T-41 or T-51) or landing (LND) flaps (T-52).
4. Accomplish T-41 or T-51 landings with the flaps in the full DOWN position.
5. Accomplish landings with flaps in the UP position.
6. Air National Guard only. Evaluate one precision, and one nonprecision approach.

2.5. Instrument Evaluations. MAJCOMs specify pilot INSTM evaluation requirements in a supplement to this instruction. Unless specifically authorized by the MAJCOM, INSTM evaluations are not authorized.

Chapter 3

EVALUATION CRITERIA

3.1. Evaluations. To ensure standard and objective evaluations, use the grading criteria in **Table 3.1** for required proficiency standards.

Table 3.1. Evaluation Criteria.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
1	Area 1. Mission Planning.	Developed plan to complete all mission requirements in a timely manner and according to all applicable directives. Was aware of alternatives available if flight couldn't be completed as planned. Correctly planned the flight based on the National Airspace System (NAS). Read and initialed all items in the FCIF or read files. Was prepared at briefing time.	Made minor errors or omissions that did not detract from mission effectiveness. Demonstrated limited knowledge of performance capabilities or approved operating procedures or rules in some areas.	Made major errors or omissions that would have prevented a safe or effective mission. Violated the NAS. Displayed faulty knowledge of operating data or procedures. Did not review or initial FCIF. Was not prepared at briefing time.
2	Area 2. Mission Briefing: a. Organization.	Briefing well organized and comprehensive with a logical sequence. Finished in time to allow for preflight of personal equipment and aircraft	Events were out of sequence and hard to follow; some were redundant.	Gave a confusing presentation. Did not allow time for preflight of personal equipment and aircraft.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
	b. Presentation.	Clearly defined mission requirements and objectives. Ensured cockpit/crew resource management (CRM) objectives clearly understood. Solicited questions and comments.	Did not adequately discuss CRM objectives. Dwelled on nonessential mission items.	Briefing was redundant throughout. Lost interest of flight members. Presentation created doubts or confusion.
3	Area 3. Ground Operations.	Established and adhered to station, start engine, taxi, and takeoff times to assure thorough preflight, check of personal equipment, etc. Accurately determined readiness of aircraft for flight. Performed all checks and procedures prior to takeoff in accordance with approved checklists and applicable directives.	Made minor procedural deviations that did not detract from mission effectiveness.	Omitted major checklist items. Major deviations in procedure would have prevented safe mission accomplishment. Failed to accurately determine readiness of aircraft for flight. Errors directly contributed to a late takeoff that degraded the mission or made it ineffective.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
4	Area 4. Takeoff.	Maintained smooth aircraft control throughout takeoff. Maintained runway alignment ±10 feet during takeoff. Rotated -0 to +10 knots of rotation speed. Retracted flaps after safely airborne and prior to exceeding aircraft limits.	Made minor procedural deviations that did not detract from the takeoff. Control was rough or erratic. Runway alignment was ±20 feet. Rotated -0 to +15 KIAS of rotation speed.	Takeoff was potentially dangerous. Exceeded aircraft or systems limitations. Raised flaps too early or too late. Failed to establish proper climb attitude. Over- controlled aircraft, resulting in excessive deviations from intended flight-path.
5	Area 5. Departure.	Executed departure as published or directed and complied with all restrictions.	Minor deviations in airspeed and navigation occurred during completion of departure.	Failed to comply with published or directed departure instructions.
6	Area 6. Climb.	Climb performed with full throttle, proper rpm and a consistent pitch attitude. Airspeed -0 to +5 KIAS. Complied with all restrictions.	Climbed with improper rpm (±100 rpm). Pitch attitude inconsistent but safety not compromised. Airspeed -5 to +10 KIAS.	Exceeded Q- criteria. Failed to make appropriate corrections. Safety compromised.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
7	Area 7. Clearing.	Recognized actual or potential conflicts and adjusted aircraft performance to safely avoid those conflicts. Effectively utilized accepted clearing techniques and employed aircraft systems to aid in clearing.	Was intermittent throughout sortie. Was slow to take actions to reduce possible conflicts.	Clearing was inadequate and actions were not taken to reduce possible conflicts.
8	Area 8. Level Off.	Level off was smooth. Promptly established proper cruise airspeed.	Level off was erratic. Was slow in establishing proper cruise airspeed.	Leveled off at the wrong altitude. Had excessive delay or failed to establish proper cruise airspeed.
9	Area 9. Cruise/Navigation.	Demonstrated satisfactory capability to navigate, using appropriate navigation procedures. Complied with clearance instructions. Was aware of position at all times. Remained within the confines of assigned airspace.	Made minor errors in procedures or use of navigation equipment. Was slow to comply with clearance instructions. Had some difficulty in establishing exact position and course.	Exceeded Q-criteria. Made major errors in procedures or use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace.
10	Area 10. In-Flight Checks.	Completed all checklist items correctly and at the proper point in the mission.	Same as Q except for minor deviations during checks that did not detract from mission accomplishment.	Did not perform in-flight checks or monitor systems.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
11	Area 11. In-Flight Planning/Area Orientation.	Actively monitored fuel throughout the mission and complied with all established fuel requirements. Adhered to briefed joker and bingo fuels. Adjusted mission profile to comply with time or fuel limitations, weather, and area limits. Remained within area boundaries and used assigned airspace efficiently.	Made errors in fuel management procedures that did not prevent mission accomplishment. Was slow to adjust mission profile for time or fuel limitations, weather, and area limits.	Failed to monitor fuel status or comply with established fuel requirements. Poor fuel management prevented mission accomplishment. Exceeded area boundaries.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
12	Area 12. Communication/IFF Procedures.	Able to understand and prioritize multiple radio transmissions. Correctly formulated timely and accurate responses using proper terminology. Complied with and acknowledged all required instructions. All required radio calls made in accordance with directives. Inter-cockpit communication was clear and concise. Used appropriate IFF procedures in accordance with directives.	Occasional deviations from procedures required retransmissions or resetting codes. Was slow to initiate (or missed) some required calls. Made minor errors or omissions that did not significantly detract from situational awareness or mission accomplishment. Transmissions were not in proper sequence or used nonstandard terminology. Communication was sometimes unclear or confusing, but did not significantly impact mission accomplishment or flight safety.	Incorrect procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted (or missed) numerous required radio calls. Inaccurate or confusing terminology significantly detracted from situational awareness, or mission accomplishment. Unclear or confusing inter-cockpit communication significantly impacted mission accomplishment or flight safety.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
13	Area 13. Crew Coordination.	Provided direction and information when necessary. Effectively coordinated with other crewmembers throughout the mission. Focused crew attention on task at hand. Solicited inputs from other crewmembers when appropriate.	Crew coordination was adequate to accomplish the mission. Deficiencies in crew communication or interaction resulted in degraded crew or mission efficiency.	Poor crew coordination seriously degraded mission accomplishment or safety of flight.
14	Area 14. Risk Management/ Decision-making.	Accurately identified all contingencies and alternatives. Gathered and cross-checked available data before deciding. Clearly stated decisions and ensured they were understood.	Made minor errors in identifying contingencies, gathering data, or communicating a decision that did not affect safe or effective mission accomplishment.	Improperly or ineffectively identified contingencies, gathered data, or communicated a decision that seriously degraded mission accomplishment or safety of flight.
15	Area 15. Task Management.	Correctly prioritized and managed multiple tasks, based on existing and new information that assured mission success.	Made minor errors in prioritization or management of tasks that did not affect safe or effective mission accomplishment.	Incorrectly prioritized or managed tasks that seriously degraded mission accomplishment or safety of flight.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
16	Area 16. Debriefing.	Thoroughly debriefed objectives and applicable portions of the mission. Complete and accurate analysis of all events or maneuvers.	Performed a limited debriefing. Did not debrief all deviations. Was occasionally unclear in analysis of events or maneuvers.	Made major errors or omissions in debriefing. Analysis of events or maneuvers was incomplete, inaccurate, or confusing. Debriefing was below the caliber of that expected of instructors.
17	Area 17. Airmanship **(Critical).**	Executed assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.	**Note:** Because this area is critical, Q- is not applicable.	Poor decisions resulted in failure to accomplish the assigned mission. Demonstrated poor judgment that compromised safety.
18	Area 18. Safety **(Critical).**	Was aware of and complied with all factors required for safe aircraft operation and mission accomplishment.	**Note:** Because this area is critical, Q- is not applicable.	Was not aware of or did not comply with all factors required for safe operation or mission accomplishment. Operated the aircraft in a dangerous manner. Knowingly violated established procedures or flight restrictions.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
19	Area 19. Aircrew Discipline **(Critical).**	Demonstrated strict professional flight and crew discipline throughout all phases of the mission.	**Note:** Because this area is critical, Q- is not applicable.	Failed to exhibit strict flight or crew discipline. Knowingly violated flight restrictions or established procedures.
20	Area 20. Situational Awareness.	Accurately analyzed flight conditions to minimize effects of adverse factors and capitalized on opportunities. Maintained fuel awareness and planned and acted in a timely manner to ensure safe mission accomplishment. Never exceeded capability to safely control the aircraft. Prioritization of flight requirements assured mission success.	Missed occasional opportunities to effectively conduct mission. Neglected consideration for other aircraft. Minor misprioritization detracted from mission effectiveness without compromising success.	Misanalysis of flight conditions and failure to prioritize compromised safety or mission accomplishment.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
21	Area 21. Steep Turns.	Aircraft control was smooth and positive. Performed 360o of turn in both directions. Bank angle was ± 5o. Altitude was ±100 feet. Rollout heading ±10o. Used sufficient rudder to remain coordinated throughout the maneuver.	Made minor deviations. Bank angle was ±10o. Altitude was ±200 feet. Rollout heading was ±15 degrees. Used insufficient rudder to remain coordinated throughout the maneuver	Exceeded Q-criteria. Failed to make appropriate corrections.
22	Area 22. Power-Off Stalls. a. Imminent Turning Power-Off Stall.	Recovered properly at the artificial stall warning, with minimum loss of altitude at a safe flying airspeed and without entering a secondary stall. Remained coordinated throughout maneuver.	Delayed recovery beyond the artificial stall warning. Allowed the aircraft to enter a secondary stall. Delayed recognition and correction of uncoordinated flight.	Failed to recognize approach to stall indications. Misapplied flight control and throttle inputs in a manner that aggravated the approach to stall/stall condition and resulted in excessive altitude loss. Exceeded aircraft limits. Uncoordinated flight led to a spin.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
	b. Turning Power-Off Stall. c. Landing Attitude Stall.	Recovered properly at the first aerodynamic indication of a stall, with minimum loss of altitude at a safe flying airspeed and without entering a secondary stall. Remained coordinated throughout maneuver.	Delayed recovery beyond the first aerodynamic indication of a stall. Allowed the aircraft to enter a secondary stall. Delayed recognition and correction of uncoordinated flight.	Failed to recognize approach to stall indications. Misapplied flight control and throttle inputs in a manner that aggravated the approach to stall/stall condition and resulted in excessive altitude loss. Exceeded aircraft limits. Uncoordinated flight led to a spin
23	Area 23. Power-On Stalls. (Note 1) a. Straight Ahead Power-On Stall. b. Turning Power-On Stall.	Recovered to level flight with minimum loss of altitude and at a safe flying airspeed when flight control effectiveness was lost (T-41 or T-51), or at the first aerodynamic indication of a stall (T-52). Remained coordinated throughout maneuver. Did not enter a secondary stall.	Delayed recovery beyond when flight control effectiveness was lost (T-41 or T-51), or the first aerodynamic indication of a stall (T-52). Allowed the aircraft to enter a secondary stall. Delayed recognition and correction of uncoordinated flight.	Failed to recognize loss of control effectiveness (T-41 or T-51) or the first aerodynamic indication of a stall (T-52). Misapplied flight control and throttle inputs in a manner that aggravated the stalled condition and resulted in excessive altitude loss. Exceeded aircraft limits. Uncoordinated flight led to a spin.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
	c. Secondary Stall.	Recovered to level flight with minimum loss of altitude and at a safe flying airspeed at the first aerodynamic indication of a secondary stall. Remained coordinated throughout maneuver.	Delayed recovery beyond first aerodynamic indication of a secondary stall. Delayed recognition and correction of uncoordinated flight.	Failed to recognize secondary stall and apply recovery procedures. Misapplied flight control and throttle inputs in a manner that aggravated the stalled condition and resulted in excessive altitude loss. Exceeded aircraft limits.
24	Area 24. Slow Flight.	Maintained appropriate slow flight airspeed -0 to +5 KIAS. Maintained altitude ±100 feet. Used sufficient rudder to remain coordinated throughout the maneuver.	Maintained appropriate slow flight airspeed -5 to +10 KIAS. Maintained altitude ±150 feet. Used insufficient rudder to remain coordinated throughout the maneuver.	Maintained deviations in excess of Q-criteria

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
25	Area 25. Simulated Forced Landing.	Complied with all flight manual and operational procedures. Maintained proper glide airspeed, -0 to +5 KIAS. Used sound judgment. Configured at the appropriate position or altitude. Flew final based on recommended procedures, airspeed, and glide path. Had smooth, positive control of aircraft. Aimpoint was according to applicable guidance and permitted safe stopping in available landing area.	Made minor procedural errors that did not detract from safe handling of the situation. Airspeed control was erratic. Configured at a position and altitude that allowed for a safe approach. Required unnecessary maneuvering due to minor errors in planning or judgment. Aimpoint was longer or shorter than desired.	Did not comply with applicable procedures. Erratic airspeed control compounded problems associated with the emergency. Judgment was unsafe. Required excessive maneuvering. Could not have landed safely. Touchdown point would not have allowed for safe stopping in available landing area. Exceeded aircraft limits.
26	Area 26. Aerobatics (Chandelle/Lazy Eight).	Maneuvers were smooth, positive, coordinated, and flown IAW all applicable directives. Attained proper entry parameters prior to beginning the maneuver and placed emphasis on use of outside references.	Entry parameters were not met and energy levels were not adequate to properly accomplish maneuver. Aircraft control during maneuvers was adequate, but not smooth and positive. Minor procedural deviations occurred.	Significantly missed entry parameters. Maneuvers were not flown IAW directives. Aircraft control was erratic, causing unsatisfactory accomplishment of maneuvers. Exceeded aircraft limits.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
27	Area 27. Unusual Attitudes.	Made expeditious recovery to level flight without excessive altitude loss and without stalling or exceeding aircraft limits.	Slow to analyze attitude or erratic in recovery to level flight. Correct recovery procedures used.	Was unable to determine attitude. Used improper recovery procedures. Exceeded aircraft limits. Lost excessive altitude during recovery.
28	Area 28. Arrival.	Performed VFR arrival IAW procedures and techniques outlined in flight manual, operational procedures, and local directives.	Performed VFR arrival with minor deviations to procedures and techniques outlined in flight manual, operational procedures, and local directives.	VFR arrival was not performed according to procedures and techniques outlined in flight manual, operational procedures, and local directives.
29	Area 29. En route Descent.	Performed enroute descent as published or directed and complied with all restrictions and directives.	Minor deviations in airspeed and navigation occurred.	Failed to comply with published or directed enroute descent instructions or directives.
30	Area 30. Traffic Entry.	Performed traffic entry as published or directed and complied with all restrictions and directives.	Minor deviations occurred.	Failed to comply with published or directed traffic entry instructions or directives.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
31	Area 31. Patterns.	Properly analyzed pattern winds. Maintained appropriate pattern airspeeds -0 to +10 KIAS. Maintained pattern altitude ±100 feet prior to the base turn. Complied with published directives.	Misanalysis of pattern winds resulted in loose or tight downwind or long or short final. Maintained appropriate pattern airspeeds -5 to +15 KIAS. Maintained pattern altitude ±200 feet prior to the base turn.	Exceeded Q- criteria.
32	Area 32. Normal Landing.	Properly analyzed winds. Aircraft properly configured. Final turn and final airspeed was -0 to +10 KIAS. Maintained proper runway alignment (±10 feet) in the prescribed landing zone. Braking was smooth and effective. Pitch attitude at touchdown was slightly higher than the pitch attitude used for takeoff.	Final turn and final airspeed was -5 to +15 KIAS. Touchdown was slightly outside the prescribed landing zone but safe. Ineffective braking resulted in an increased landing roll.	Exceeded Q- criteria. Configuration was improper.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
33	Area 33. Full Flap Landing.	Properly analyzed winds. Maintained pattern altitude ±100 feet prior to the final turn. Aircraft properly configured. Final turn and final airspeed was -0 to+10 KIAS. Maintained proper runway alignment (±10 feet) in the prescribed landing zone. Braking was smooth and effective. Pitch attitude at touchdown was slightly higher than the pitch attitude used for takeoff.	Maintained pattern altitude ±200 feet prior to the final turn. Final turn and final airspeed was -5 to +15 KIAS. Touchdown was slightly outside the prescribed landing zone but safe. Ineffective braking resulted in an increased landing roll.	Exceeded Q- criteria. Configuration was improper.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
34	Area 34. No-Flap Landing.	Properly analyzed winds. Maintained pattern altitude ±100 feet prior to the final turn. Aircraft properly configured. Final turn and final airspeed was -0 to +10 KIAS. Maintained proper runway alignment (±10 feet) in the prescribed landing zone. Braking was smooth and effective. Pitch attitude at touchdown was slightly higher than the pitch attitude used for takeoff.	Maintained pattern altitude ±200 feet prior to the final turn. Final turn and final airspeed was -5 to +15 KIAS. Touchdown was slightly outside the prescribed landing zone but safe. Ineffective braking resulted in an increased landing roll.	Exceeded Q- criteria. Configuration was improper.
35	Area 35. Touch-and-Go Procedures.	Maintained proper runway alignment (±10 feet), and was in the prescribed landing zone. Application of power, cross-check of engine instruments, configuration changes, and runway alignment during takeoff phase was smooth and timely.	Executed landing phase with minor deviations. Touchdown was slightly outside the prescribed landing zone but safe. Application of power, cross-check of engine instruments, configuration changes, and runway alignment during the takeoff phase was slow.	Exceeded Q- criteria. Application of power, cross-check of engine instruments, configuration changes, and runway alignment was late during the takeoff phase.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
36	Area 36. Go-Around.	Initiated and performed go-around promptly IAW operational procedures and directives.	Was slow to initiate go-around or procedural steps.	Did not initiate go-around when appropriate or directed. Techniques were unsafe or applied incorrect procedures.
37	Area 37. Breakout and Reentry.	Complied with all flight manual and operational procedures. Maintained safe airspeed and altitude.	Erratic airspeed and altitude controlled to minor procedural errors. Errors did not detract from safe handling of the situation.	Did not comply with applicable procedures. Erratic airspeed and altitude control compromised safety.
38	Area 38. Transfer of Aircraft Control.	Transfer of aircraft control was positive. No doubt existed as to who was in control of the aircraft.	Transfer of aircraft controlled to momentary doubts as to who was in control of the aircraft. Errors did not detract from safety.	Lack of transfer of aircraft controlled to both pilots attempting to control the aircraft at the same time. Safety was compromised.
39	Area 39. Throttle/Mixture/Propeller Procedure.	Engine use in accordance with all directives and local procedures.	Minor deviations from directives and local procedures. Corrections slow.	Exceeded Q- criteria. Engine limitations exceeded.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
40	Area 40. Emergency Procedures.	Correctly and immediately responded to boldface or critical action procedures and non-boldface emergency situations while maintaining aircraft control. Effectively used checklist and in-flight guide as appropriate.	Response to boldface or critical action procedures was correct, but response to non-boldface procedures was slow or confused. Aircraft deviations (if in flight) existed but did not compromise safety. Used the checklist and in- flight guide, but was slow to locate required data.	Made incorrect response for boldface or critical action procedures. Unable to analyze problems or take corrective action. Aircraft deviations (in- flight) compromised safety. Did not use checklist or in-flight guide or lacked acceptable familiarity with its arrangement or content.
41	Area 41. General Knowledge. a. Aircraft General.	Demonstrated a thorough knowledge of aircraft systems, limitations, and performance characteristics.	Demonstrated deficiencies either in depth of knowledge or comprehension.	Demonstrated unsatisfactory knowledge of aircraft systems, limitations, or performance characteristics.
	b. Flight Rules and Procedures.	Had a thorough knowledge of flight rules and procedures, to include the NAS.	Had deficiencies in depth of knowledge.	Had inadequate knowledge of flight rules or procedures.
	c. Local Area Procedures.	Had a thorough knowledge of local procedures.	Had limited knowledge of local procedures.	Had inadequate knowledge of local procedures.
42	Area 42. Publications.	Publications were current, contained all supplements and changes, and were properly posted.	Publications contained deficiencies that would not impact flight safety or mission accomplishment.	Publications were outdated and/or contained deficiencies that would impact flight safety or mission accomplishment.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
43	Area 43. Instructor Knowledge.	Demonstrated in-depth knowledge of procedures, requirements, aircraft systems, performance characteristics, and mission beyond that expected of non-instructors.	Had deficiencies in depth of knowledge, comprehension of procedures, requirements, aircraft systems, performance characteristics, or mission.	Was unfamiliar with procedures, requirements, aircraft systems, performance characteristics, or mission. Lack of knowledge seriously detracted from instructor effectiveness.
44	Area 44. Ability to Instruct.	Demonstrated excellent instructor ability. Clearly defined all mission objectives and requirements and any required additional training or corrective action. Instruction or evaluation was accurate, effective, and timely. Was completely aware of aircraft or mission situation at all times.	Problems in communication or analysis degraded effectiveness of instruction or evaluation.	Demonstrated inadequate ability to instruct or evaluate. Unable to teach, or assess techniques, procedures, systems use, or tactics. Was not aware of aircraft or mission situation at all times.
45	Area 45. Grading Practices.	Completed appropriate training or evaluation records accurately. Adequately assessed and recorded performance. Comments were clear and pertinent.	Made minor errors or omissions in training or evaluation records. Comments were incomplete or slightly unclear.	Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
46	Area 46. Flight Test Techniques. a. Performance maneuvers.	All maneuvers performed within the data band for airspeed and/or altitude planned on test card. Minor deviations corrected with timeliness. Test point data taken within data tolerances depicted on test card. The pilot appropriately commented on any deviations from planned tolerances due to adverse flight conditions. Pilot comments on data quality and mission suitability were made consistently throughout maneuvers.	Some or all maneuvers performed outside of data band for airspeed and/or altitude, but within +/- one data band unless changed for adverse flight conditions. Several (more than 3) test points taken outside of planned data tolerances depicted on test cards due to lack of precision or attention to required data parameters. Pilot fails to comment on quality and mission suitability of test data.	All maneuvers performed outside of +/- one data band with no attempt to correct deviations. Data band can be changed due to adverse flying conditions. Many (more than 5) test points taken outside of planned data tolerances depicted on test card due to lack of precision flight or attention to required data parameters. Event limits on test card or aircraft limits exceeded.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
	b. Flying Qualities Maneuvers.	All maneuvers performed within the data band for airspeed and/or altitude planned on test card. Minor deviations corrected with timeliness. Trim shots taken within ±2 knots of test trim speed and ±50 feet of test altitude. Test point data taken within data tolerances depicted on test card. Special data instruments utilized accurately and precisely. The pilot appropriately commented on any deviations from planned tolerances due to adverse flight conditions. Pilot comments on data quality and mission suitability were made consistently throughout maneuvers.	Some maneuvers performed outside of data band for airspeed and/or altitude, unless changed for adverse flight conditions. Trim shots taken within ±3 knots of test trim speed and ±100 feet of test altitude. Special instruments utilized consistently. Several (more than 3) test points taken outside of planned data tolerances depicted on test cards due to lack of precision or attention to required data parameters. Pilot fails to comment on quality and mission suitability of test data.	Most maneuvers performed outside of data band with no attempt to correct deviations. Data band can be changed due to adverse flying conditions. Special data instruments not used. Many (more than 5) test points taken outside of planned data tolerances depicted on test card due to lack of precision flight or attention to required data parameters. Event limits on test card or aircraft limits exceeded.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
47	Area 47. NIFA Maneuvers.	Performed NIFA maneuvers in accordance with procedures outlined in the NIFA rules for intercollegiate safety and flight evaluation conferences (SAFECON).	Performed NIFA maneuvers with minor deviations to procedures outlined in the NIFA rules for intercollegiate SAFECONs.	Did not perform NIFA maneuvers in accordance with procedures outlined in the NIFA rules for intercollegiate SAFECONs.
48	Area 48. Instrument Approaches. (Note 2) a. Precision Approach.	Executed approach as published IAW the flight manual. Made smooth and timely corrections to azimuth and glide slope to remain within one dot (ILS), or maintained glide path with only minor deviations and heading within 5 degrees of controller instructions (PAR). Airspeed was -0 to +10 KIAS. Complied with decision height. Position would have permitted a safe landing.	Minor deviations did not detract from the approach. Slow to make corrections or initiate procedures. Glide slope was within one dot low or two dots high and azimuth was within two dots (ILS), or glide path never exceeded well above or below glide path and heading was within 10 degrees of controller instruction (PAR). Airspeed was -5 to +15 KIAS and glide slope was within one dot low or two dots high. Azimuth was within two dots. Position at decision height would have permitted a safe landing.	Exceeded Q- limits. Performed procedures with major deviations. Made erratic corrections. Did not comply with decision height or position at decision height would not have permitted a safe landing.

ITEM	A	B	C	D
		Grading Criteria		
	Grading Area	**Q**	**Q-**	**U**
	b. Nonprecision Approach.	Adhered to all published or directed procedures and restrictions. Made smooth and timely response to controller instructions (ASR). Used appropriate descent rate to arrive at minimum descent altitude (MDA) (+100 to -0 feet) at or before the visual descent point. Maintained less than one dot deflection (LOC), course within 5 degrees (VOR), or heading within 5 degrees of controller instructions (ASR). Airspeed was -0 to +10 KIAS. Position at the missed approach point (MAP) would have permitted a safe landing.	Executed approach with minor deviations. Arrived at MDA (+150 to -0 feet) at or before the MAP, but past the visual descent point. Maintained within two dots deflection (LOC), course within 10 degrees (VOR), or heading within 10 degrees of controller instructions (ASR). Airspeed was -5 to +15 KIAS. Position at the MAP would have permitted a safe landing.	Exceeded Q-limits. Did not comply with procedures, restrictions, and controller instructions (ASR). Maintained steady-state flight below the MDA. Could not land safely from the approach.

Notes:
1. Loss of control effectiveness is indicated by an uncontrolled nose drop, roll, or yaw. In the T-52, the first aerodynamic indication of a stall includes aircraft buffet or loss of control effectiveness, whichever occurs first.
2. Air National Guard only.

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DCS Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 11-2, Aircrew Operations, 19 January 2012

AFI 11-200, Aircrew Training, Standardization/Evaluation, and General Operations Structure, 19 January 2012

AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*, 13 September 2010

AFI 11-2T-41-51-52-53, Volume 1, *T-41, T-51, T-52, and T-53 Aircrew Training, 12 March 2010*

AFMAN 33-363, *Management of Records*, 1 March 2008

TO 1T-41D-1CL-1, *Pilots' Abbreviated Flight Crew Checklist, USAF Series, T-41D Aircraft*, 15 February 2002

TO 1T-51A-1CL-1, *Pilots' Abbreviated Flight Manual Checklist, USAF Series T-51A Aircraft*, 15 May 2006

TO 1T-52A-1CL-1, *Pilot's Abbreviated Flight Crew Checklist, USAF Series T-52A Aircraft*, 9 December 2009

TO 1T-53A-1CL-1, *Pilot's Abbreviated Flight Crew Checklist, USAF Series T-53 Aircraft*, 18 December 2008

Forms Adopted

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 8A, *Certificate of Aircrew Qualification (Multiple Aircraft)*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AGL—above ground level

CRM—cockpit/crew resource management

EPE—emergency procedures evaluation

FCIF—flight crew information file

FE—flight examiner

IAW—in accordance with

IFF—identification, friend or foe

IFG—in-flight guide

INSTR—instructor

IP—instructor pilot

KIAS—knots indicated airspeed

knots—nautical miles per hour

MAJCOM—major command

MSN—mission

NAS—national airspace system

NIFA—national intercollegiate flying association

nm—nautical mile

OPR—office of primary responsibility

Q—qualified

Q-1—Qualification Level 1

Q-2—Qualification Level 2

Q-3—Qualification Level 3

QUAL—qualification

R—required area

rpm—revolutions per minute

SAFECON—safety and flight evaluation conferences

stan/eval—standardization and evaluation

U—unqualified

VFR—visual flight rules

Terms

Bingo fuel—A pre-briefed fuel state that allows the aircraft to return to the base of intended landing or an alternate using normal recovery procedures.

Joker fuel—A prebriefed fuel needed to terminate an event and transition the next mission phase.